

(FILE 'USPAT' ENTERED AT 14:14:23 ON 27 MAY 1999)

L1 30761 S POLYOLEFIN  
L2 5750 S L1 AND (CYCLIC OR CYCLOHEXANE OR NORBORNENE)  
L3 199 S L2 AND TONER  
L4 728 S L2 AND POLYOLEFIN(P) (CYCLIC OR CYCLOHEXANE OR NORBORNENE)  
)  
L5 10 S L4 AND TONER  
L6 199 S L3 AND TONER(P) L2  
L7 199 S L2(P) TONER  
L8 376 S POLYOLEFIN(P) TONER  
L9 0 S L8 AND POLYOLEFIN(P) (CYCLIC OR CYCLOHEXANE OR NORBORNENE)  
L10 143 S POLYOLEFIN(P) DEVELOPER  
L11 2 S L10 AND POLYOLEFIN(P) (CYCLIC OR CYCLOHEXANE OR NORBORNENE)  
E)  
L12 1 S L8 AND POLYOLEFIN (P) (CYCLIC OR CYCLOHEXANE OR NORBORNENE)  
NE)

=> d his

(FILE 'HOME' ENTERED AT 13:50:30 ON 27 MAY 1999)

FILE 'CAPLUS' ENTERED AT 13:50:35 ON 27 MAY 1999

L1 20489 S TONER

L2 472 S L1 AND (POLYOLEFIN OR OLEFIN)

L3 2 S L2 AND (CYCLIC OR CYCLOHEXANE OR NORBORENE)

=> d 1-2 all

L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 1999 ACS  
AN 1998:485241 CAPLUS  
DN 129:128961  
TI **Toner** for electrostatic image development containing  
**polyolefin** resin having **cyclic** structure  
IN Nishioka, Toshimi; Fukuzawa, Junichi; Nakamura, Toru; Arai, Satoshi;  
Hoga, Takuya; Arai, Masayuki; Land, Horst-tore; Osan, Frank; Wehrmeister,  
Thomas  
PA Hoechst Research & Technology Japan Ltd., Japan  
SO PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
IC ICM G03G009-087  
ICS G03G009-08; G03G009-12  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9829783	A1	19980709	WO 97-JP4848	19971225
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9878926	A1	19980731	AU 98-78926	19971225
PRAI	JP 96-348546		19961226		
	WO 97-JP4848		19971225		

AB A **toner** for electrostatic image development which has a wide nonoffset temp. range sufficient for practical use and can attain sufficient fixability even in high-speed copying. The **toner** comprises mainly a binder resin, a colorant, a functional additive, and a charge control agent. The binder resin comprises one or more **polyolefin** resins which have **cyclic** structures and consist of a resin or resin fraction having a no.-av. mol. wts. (Mn) smaller than 7,500 as measured by GPC and another resin or resin fraction having a GPC no.-av. mol. wt. of 7,500 or higher. In the **polyolefin** resin having a **cyclic** structure, the content of a resin or resin fraction having an intrinsic viscosity (i.v) of 0.25 dL/g or higher, a GPC no.-av. mol. wt. (Mn) of 7,500 or higher, and a GPC wt.-av. mol. wt. (Mw) of 15,000 or higher is lower than 50 wt.% based on the whole binder resin.

ST electrophotog **toner polyolefin** binder

IT Acrylic polymers, uses

RL: DEV (Device component use); USES (Uses)

(styrene-contg.; **toner** for electrostatic image development  
contg. **polyolefin** resin having **cyclic** structure)

IT Electrophotographic toners

(**toner** for electrostatic image development contg.  
**polyolefin** resin having **cyclic** structure)

IT Ionomers  
Polyesters, uses  
Polyolefins  
RL: DEV (Device component use); USES (Uses)  
(**toner** for electrostatic image development contg.  
**polyolefin** resin having **cyclic** structure)

IT 188364-55-8, MC 100 (acrylic polymer) 188364-56-9, Taftone NE 2155  
188364-68-3, T 745 188364-70-7, T 745CL 188364-71-8, T 745MO  
210235-72-6, MT 845 210235-79-3, MT 849 210235-80-6, MT 854  
RL: DEV (Device component use); USES (Uses)  
(**toner** for electrostatic image development contg.  
**polyolefin** resin having **cyclic** structure)

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 1999 ACS  
AN 1997:247859 CAPLUS  
DN 126:231505  
TI Hot-roller-fixing **toner** for developing electrostatically charged  
images  
IN Nakamura, Toru; Nishioka, Toshimi; Hoga, Takuya; Kurokawa, Nobuyuki;  
Fukuzawa, Junichi; Land, Horst-tore; Helmer-metzmänn, Fredy  
PA Hoechst Industry Limited, Japan; Nakamura, Toru; Nishioka, Toshimi; Hoga,  
Takuya; Kurokawa, Nobuyuki; Fukuzawa, Junichi; Land, Horst-Tore;  
Helmer-Metzmann, Fredy  
SO PCT Int. Appl., 15 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
IC ICM G03G009-087  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9705529	A1	19970213	WO 96-JP2133	19960729
	W: CA, CN, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	JP 09101631	A2	19970415	JP 95-354063	19951229
	CA 2228506	AA	19970213	CA 96-2228506	19960729
	EP 843223	A1	19980520	EP 96-925122	19960729
	R: DE, ES, FR, GB, IT, NL, SE, IE				
	CN 1201533	A	19981209	CN 96-196905	19960729
PRAI	JP 95-216751		19950802		
	JP 95-354063		19951229		
	WO 96-JP2133		19960729		
AB	A hot-roller-fixing <b>toner</b> for developing electrostatically charged images which mainly comprises a binder resin, a colorant and a charge control agent, characterized in that the binder resin at least comprises a <b>polyolefin</b> resin having a <b>cyclic</b> structure and contains less than 50 wt.% of a <b>polyolefin</b> resin having a <b>cyclic</b> structure, satisfying the relation: intrinsic viscosity .gtoreq. 0.25 dL/g and HDT (heat deformation temp. according to DIN53461-B) .ltoreq. 70.degree. and exhibiting a no.-av. mol. wt. of 7500 or above and a wt.-av. mol. wt. of 15,000 or above as detd. by GPC. This <b>toner</b> is excellent in fixation, light transmittance and inhibition of spent <b>toner</b> generation and can give clear and high-quality images. Further, the <b>toner</b> is applicable to dry single-component magnetic toners, dry single-component nonmagnetic toners, dry two-component toners and liq. toners.				
ST	<b>polyolefin</b> hot roller fixing electrostatog <b>toner</b>				
IT	Polyesters, uses Polyolefins RL: TEM (Technical or engineered material use); USES (Uses) (hot-roller-fixing electrostatog. toners contg.)				

IT Electrographic toners  
Electrophotographic toners  
(polyolefin resins for hot-roller-fixing)  
IT 188364-55-8, MC 100 (acrylic polymer) 188364-56-9, Taftone NE 2155  
188364-67-2, S 8007 188364-68-3, T 745 188364-70-7, T 745CL  
188364-71-8, T 745MO  
RL: TEM (Technical or engineered material use); USES (Uses)  
(hot-roller-fixing electrostatog. toners contg.)

d his

(FILE 'HOME' ENTERED AT 14:05:38 ON 27 MAY 1999)

FILE 'REGISTRY' ENTERED AT 14:05:41 ON 27 MAY 1999

	E T745/CN
	E T 745/CN
L1	1 S E3
	E S 8007/CN
L2	1 S E3
	E T 745MO/CN
L3	1 S E3
	E T 745CL/CN
L4	1 S E3

FILE 'CAPLUS' ENTERED AT 14:08:18 ON 27 MAY 1999

L5	3 S L1 OR L2
L6	3 S L3 OR L4
L7	3 S L5 OR L6

L7 ANSWER 1 OF 3 CAPLUS COPYRIGHT 1999 ACS  
 AN 1998:485241 CAPLUS  
 DN 129:128961  
 TI Toner for electrostatic image development containing polyolefin resin  
 having cyclic structure  
 IN Nishioka, Toshimi; Fukuzawa, Junichi; Nakamura, Toru; Arai, Satoshi;  
 Hoga, Takuya; Arai, Masayuki; Land, Horst-tore; Osan, Frank; Wehrmeister,  
 Thomas  
 PA Hoechst Research & Technology Japan Ltd., Japan  
 SO PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-087  
 ICS G03G009-08; G03G009-12  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9829783	A1	19980709	WO 97-JP4848	19971225
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9878926	A1	19980731	AU 98-78926	19971225
PRAI	JP 96-348546		19961226		
	WO 97-JP4848		19971225		

AB A toner for electrostatic image development which has a wide nonoffset  
 temp. range sufficient for practical use and can attain sufficient  
 fixability even in high-speed copying. The toner comprises mainly a  
 binder resin, a colorant, a functional additive, and a charge control  
 agent. The binder resin comprises one or more polyolefin resins which  
 have cyclic structures and consist of a resin or resin fraction having a  
 no.-av. mol. wts. (Mn) smaller than 7,500 as measured by GPC and another  
 resin or resin fraction having a GPC no.-av. mol. wt. of 7,500 or higher.  
 In the polyolefin resin having a cyclic structure, the content of a resin  
 or resin fraction having an intrinsic viscosity (i.v) of 0.25 dL/g or  
 higher, a GPC no.-av. mol. wt. (Mn) of 7,500 or higher, and a GPC wt.-av.  
 mol. wt. (Mw) of 15,000 or higher is lower than 50 wt.% based on the

whole

binder resin.  
 ST electrophotog toner polyolefin binder  
 IT Acrylic polymers, uses  
 RL: DEV (Device component use); USES (Uses)  
 (styrene-contg.; toner for electrostatic image development contg.  
 polyolefin resin having cyclic structure)  
 IT Electrophotographic toners  
 (toner for electrostatic image development contg. polyolefin resin  
 having cyclic structure)  
 IT Ionomers  
 Polyesters, uses  
 Polyolefins

RL: DEV (Device component use); USES (Uses)  
 (toner for electrostatic image development containing polyolefin resin having cyclic structure)

IT 188364-55-8, MC 100 (acrylic polymer) 188364-56-9, Taftone NE 2155  
 188364-68-3, T 745 188364-70-7, T 745CL  
 188364-71-8, T 745MO 210235-72-6, MT 845 210235-79-3, MT 849  
 210235-80-6, MT 854

RL: DEV (Device component use); USES (Uses)  
 (toner for electrostatic image development containing polyolefin resin having cyclic structure)

L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 1999 ACS  
 AN 1997:516049 CAPLUS  
 DN 127:128699  
 TI Coated electrophotographic carrier for developing electrostatically charged images  
 IN Nakamura, Toru; Nishioka, Toshimi; Hoga, Takuya; Kurokawa, Nobuyuki; Fukuzawa, Junichi; Land, Horst-Tore; Helmer-Metzmann, Fredy  
 PA Hoechst Aktiengesellschaft, Germany; Nakamura, Toru; Nishioka, Toshimi; Hoga, Takuya; Kurokawa, Nobuyuki; Fukuzawa, Junichi; Land, Horst-Tore; Helmer-Metzmann, Fredy  
 SO PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-113  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9724644	A1	19970710	WO 96-JP2135	19960729
	W: CA, CN, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	JP 09185185	A2	19970715	JP 95-354064	19951229
	CA 2228510	AA	19970710	CA 96-2228510	19960729
	EP 871073	A1	19981014	EP 96-925124	19960729
	R: DE, ES, FR, GB, IT, NL, SE, IE				
PRAI	JP 95-354064		19951229		
	WO 96-JP2135		19960729		
AB	A coated carrier for developing electrostatically charged images which comprises a particulate core and a coating resin covering the core, is characterized in that the particulate core is coated with 1 to 30 wt.% of a coating resin which at least contains less than 50 wt.% of a polyolefin resin having a cyclic structure, satisfying the relationships: i.v. (intrinsic viscosity) .gtoreq. 0.25 dL/g and HDT (heat deformation temp. according to DIN53461-B) .gtoreq. 70.degree.C and exhibiting a no.-av. mol. wt. of 7500 or above and a wt.-av. mol. wt. of 15,000 or above as detd. by GPC. This coated carrier is effective in inhibiting the generation of spent toners in the development with dry toners and is excellent in charge control.				
ST	electrophotog carrier coated polyolefin				
IT	Electrophotographic carriers (electrophotog. carriers coated with polyolefin resin)				
IT	Polyolefins RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. carriers coated with polyolefin resin)				
IT	118058-05-2, Lf 40 188364-67-2, s 8007 188364-68-3, t 745 188364-70-7, t 745CL 188364-71-8, t 745Mo RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. carriers coated with polyolefin resin)				



DN 126:231505  
 TI Hot-roller-fixing toner for developing electrostatically charged images  
 IN Nakamura, Toru; Nishioka, Toshimi; Hoga, Takuya; Kurokawa, Nobuyuki;  
 Fukuzawa, Junichi; Land, Horst-tore; Helmer-metzmann, Fredy  
 PA Hoechst Industry Limited, Japan; Nakamura, Toru; Nishioka, Toshimi; Hoga,  
 Takuya; Kurokawa, Nobuyuki; Fukuzawa, Junichi; Land, Horst-Tore;  
 Helmer-Metzmann, Fredy  
 SO PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM G03G009-087  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9705529	A1	19970213	WO 96-JP2133	19960729
	W: CA, CN, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	JP 09101631	A2	19970415	JP 95-354063	19951229
	CA 2228506	AA	19970213	CA 96-2228506	19960729
	EP 843223	A1	19980520	EP 96-925122	19960729
	R: DE, ES, FR, GB, IT, NL, SE, IE				
	CN 1201533	A	19981209	CN 96-196905	19960729
PRAI	JP 95-216751		19950802		
	JP 95-354063		19951229		
	WO 96-JP2133		19960729		
AB	A hot-roller-fixing toner for developing electrostatically charged images which mainly comprises a binder resin, a colorant and a charge control agent, characterized in that the binder resin at least comprises a polyolefin resin having a cyclic structure and contains less than 50 wt.% of a polyolefin resin having a cyclic structure, satisfying the relation: intrinsic viscosity .gtoreq. 0.25 dL/g and HDT (heat deformation temp. according to DIN53461-B) .ltoreq. 70.degree. and exhibiting a no.-av. mol. wt. of 7500 or above and a wt.-av. mol. wt. of 15,000 or above as detd. by GPC. This toner is excellent in fixation, light transmittance and inhibition of spent toner generation and can give clear and high-quality images. Further, the toner is applicable to dry single-component magnetic toners, dry single-component nonmagnetic toners, dry two-component toners and liq. toners.				
ST	polyolefin hot roller fixing electrostatog toner				
IT	Polyesters, uses Polyolefins RL: TEM (Technical or engineered material use); USES (Uses) (hot-roller-fixing electrostatog. toners contg.)				
IT	Electrographic toners Electrophotographic toners (polyolefin resins for hot-roller-fixing)				
IT	188364-55-8, MC 100 (acrylic polymer) 188364-56-9, Taftone NE 2155 188364-67-2, S 8007 188364-68-3, T 745 188364-70-7, T 745CL 188364-71-8, T 745MO RL: TEM (Technical or engineered material use); USES (Uses) (hot-roller-fixing electrostatog. toners contg.)				